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Teaching cursive writing using assistive videos: A model for parents to follow

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A R T I C L E I N F O

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A B S T R A C T

This study aimed to develop an assistive video for parents in teaching cursive writing to help address the illegibility of learners along with letter formation, letter size proportion and alignment, smoothness or quality, and spacing. It also aimed to determine the competence and challenges of parents in assisting their children in teaching cursive writing which were the bases in the development of the output of the study.

The Research and Development (R&D) methodology employed involved a sample of Grade 3 learners and their parents from Catholic schools in Ilocos Norte. Specifically, 155 Grade 3 learners and 125 Grade 3 parents participated in the study, The output was validated by six panel experts and an additional 10 parents who provided feedback via a distributed questionnaire. The study utilized three distinct questionnaires to assess the learners' cursive writing legibility, evaluate the parents' competencies and challenges in assisting their children with cursive writing, and determine the material's validity.

Findings showed a significant need for an assistive video to help parents support their children in learning cursive writing. Findings revealed that the video material was rated as *Very Highly Valid*, demonstrating its effectiveness in enhancing learning outcomes and its overall quality. Recommendations were made for parents to facilitate the adoption, utilization, and further development of the assistive video to maximize its impact on educational practices.

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Introduction

Handwriting is a fundamental skill essential for academic success, requiring the integration of biomechanics, linguistics, and psychomotor abilities (Karadag, 2018). Among writing styles, cursive stands out for its continuous, flowing motion, which enhances motor skills and supports cognitive development (Carmona-Duarte et al., 2017). Mastering cursive involves both cognitive recognition of letter shapes and fine motor control, aiding in hand-eye coordination, spelling, and automatic pattern recall (Klemm, 2013). Additionally, cursive handwriting engages multiple brain areas, offering more neurological benefits than typing or printing (Bateman, 2013).

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However, increased reliance on digital devices has reduced handwriting practice, hindering skill development (Kersey & James, 2013; Vinci-Booher et al., 2016).

Given these challenges, early handwriting interventions are essential (Semeraro et al., 2018). While teachers play a key role, their professional demands often limit individualized support, making parental involvement crucial (Morin, Lavoie, & Montesinos-Gelet, 2012). Parents can reinforce cursive writing through activities like letter writing and guided practice, supported by teacher-provided resources.

To address parents' challenges, this study develops assistive video tutorials with step-by-step instructions on cursive writing techniques, including letter formation, alignment, and spacing. These videos offer strategies to make learning engaging and accessible, equipping parents to support their children's handwriting development at home. By fostering a collaborative approach between parents and educators, the study aims to preserve cursive writing as a vital skill despite technological advancements (Mueller & Oppenheimer, 2014; Stacy & Cain, 2015).

Literature review

Cursive handwriting in the digital age

Cursive handwriting remains essential due to its cognitive benefits, enhancing motor and perceptual integration (Kersey & James, 2013; Kiefer et al., 2015). Studies highlight its role in fostering creativity, critical thinking, and academic success (Mueller & Oppenheimer, 2014; Fears & Lockman, 2018).

Parental involvement in handwriting development

Active parental participation improves children's handwriting through supportive learning environments (Anderson et al., 2019; Johnson et al., 2019). Studies emphasize the importance of parental confidence and highlight challenges such as health issues (Smith & Brown, 2018; Anderson et al., 2020).

Cursive handwriting illegibility

Key challenges include letter size, proportion, and alignment (Brown & Smith, 2019; Smith et al., 2015), with consistent practice and structured teaching strategies recommended (Jones & Brown, 2018; Anderson & Davis, 2017). Smoothness, line quality, and slant also impact legibility (Anderson & Smith, 2018; Brown & Davis, 2019).

Effective strategies for teaching cursive handwriting

Multimodal techniques, including visual, auditory, and kinesthetic methods, enhance learning (Brown, 2020). Supportive approaches help learners overcome handwriting challenges (Chen et al., 2017).

Parents' role in handwriting activities

Parental involvement is crucial for handwriting proficiency, with instructional programs showing significant improvements (Bowen & Graham, 2017; Graham et al., 2012).

Incorporating technology: Video-Based instruction

Videos provide dynamic, accessible handwriting instruction, enhancing parent and learner engagement (Huang et al., 2018; Berninger et al., 2010). Research supports video modeling as an effective teaching tool (Graham et al., 2012; Fidalgo et al., 2019).

Effectiveness of parental involvement in handwriting instruction

Parental support significantly improves handwriting legibility and accuracy (Bowler et al., 2014). Developing assistive video guides empowers parents and enhances children's handwriting development (Schmitt et al., 2014).

Theoretical perspectives on assistive videos for parental support in cursive writing instruction

Handwriting development is a foundational skill that progresses through distinct stages, as outlined by Graham and Harris (1997) and Medwell (2014). Their Handwriting Development Theory emphasizes that mastery of cursive writing requires sequential acquisition, from letter formation to alignment and slant, reinforcing the need for structured guidance. Given the crucial role of parental involvement in early education, Epstein (2010) and Sui-Chu and Willms (1996) highlight that active parental participation significantly enhances children's learning outcomes. This aligns with Bandura's (1997) Self-Efficacy Theory, which posits that parents who believe in their ability to support their child's education are more likely to engage in effective teaching strategies.

Cognitive readiness is another key factor in handwriting instruction, as explained by Piaget's (1952) Cognitive Development Theory, which underscores the importance of developmental stages in learning new skills. Simultaneously, Motor Learning Theory (Clark et al., 2002; Gabbard, 2012) reinforces the role of structured practice and feedback in refining fine motor skills essential for cursive writing. Extending this perspective, Vygotsky's (1978) Zone of Proximal Development (ZPD) Theory introduces scaffolding as a means to bridge learning gaps, where external support from knowledgeable others, including parents, plays a pivotal role. In the context of modern educational tools, assistive videos function as a form of scaffolding, equipping parents with the necessary instructional guidance to effectively teach cursive writing at home.

By synthesizing these theories, this study situates assistive videos as a practical intervention grounded in established pedagogical principles, recognizing the intersection of motor development, parental involvement, cognitive readiness, and scaffolding in facilitating handwriting instruction.

Conceptual framework

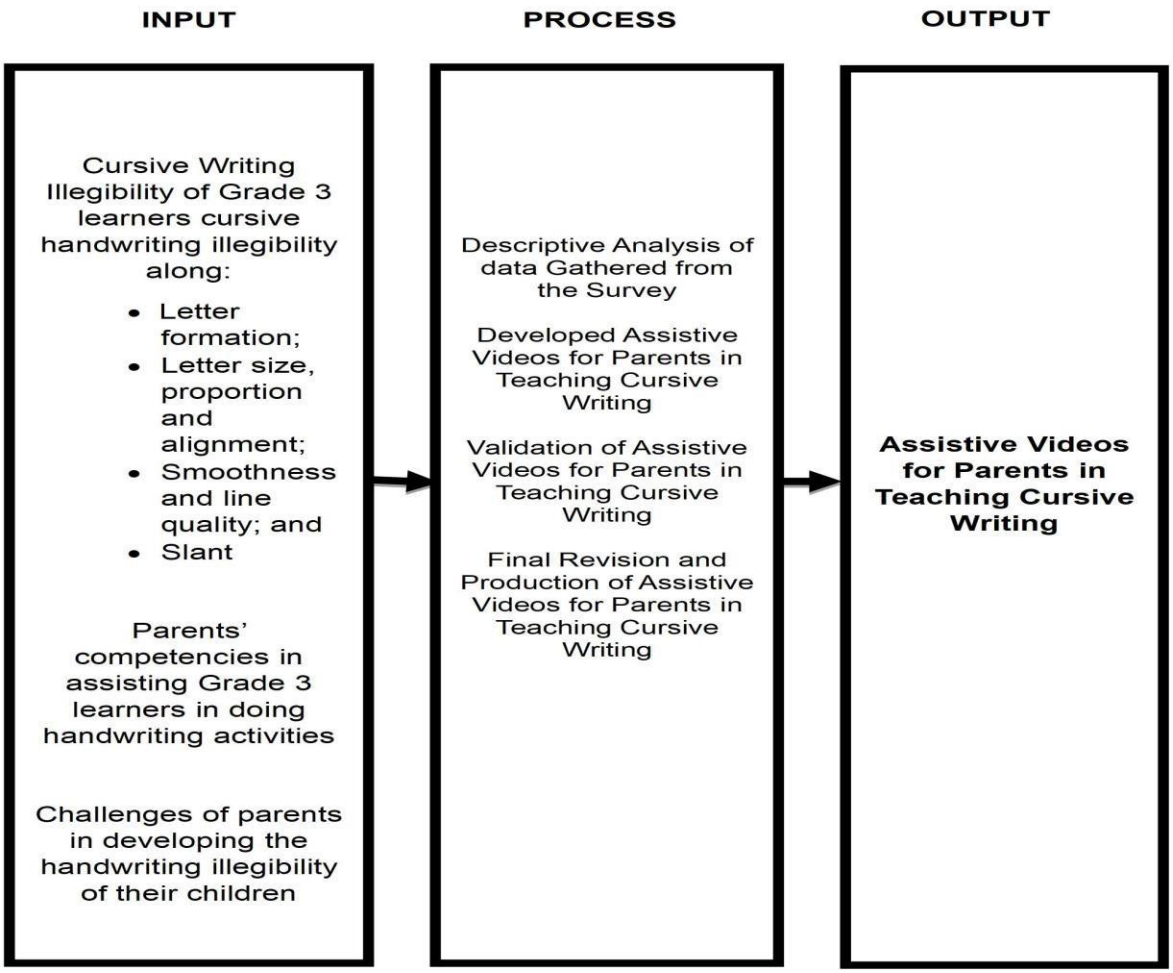


Figure 1. Conceptual framework of the study using the Input-Process-Output (IPO) model.

This illustration presents the study's conceptual framework, outlining the interconnected components of the Input-Process-Output (IPO) Model. The **Input** phase identifies key factors affecting cursive handwriting, including learner challenges, parental competence, and difficulties encountered. The **Process** phase details the development, validation, and refinement of assistive videos. The **Output** phase highlights the final production of these instructional materials, aimed at supporting parents in improving their children's handwriting skills.

Statement of the problem

This study developed an Assistive Videos for Parents in Teaching Cursive Writing. Specially, it answered to the following questions:

1. **What is the cursive writing illegibility of Grade 3 learners along:**

1.1 letter formation;
1.2 letter size, proportion, and alignment;
1.3 smoothness and line quality; and
1.4 slant?

2. **How competent are parents in assisting their children in doing handwriting activities?**

3. **What are the challenges encountered by parents in assisting their children in accomplishing handwriting activities?**

4. **What can be developed to assist parents in developing the handwriting skills of their children?**

5. **How valid is the Assistive Videos for Parents in Teaching Cursive Writing?**

Research methodology

Research design

The study utilized a Research and Design (R&D) methodology, progressing through three stages: Planning, Development, and Validation. In the Planning Stage, the researcher reviewed literature, identified knowledge gaps, and assessed learners' handwriting skills, alongside parental competence using rating scales and questionnaires. The Development Stage involved data analysis to identify key handwriting challenges, leading to the creation of an assistive video refined through expert feedback. During the Validation Stage, a panel of experts evaluated the video's instructional quality and technical aspects, resulting in final revisions. This process ensured the development of an effective, research-based instructional video to support parents in teaching cursive writing.

Locale of the study

The study was conducted in nine Catholic elementary schools across the Schools Division of Ilocos Norte, Laoag City, and Batac.

Population and sampling

The study employed total enumeration consisting of 155 Grade 3 learners and 125 Grade 3 parents from Catholic from the participating schools in Ilocos Norte. The output was validated by six panel experts and an additional 10 parents who provided feedback via a distributed questionnaire.

Data gathering instrument

Data was collected using three main instruments: the Cursive Handwriting Proficiency Assessment Tool, a Survey Questionnaire on Parental Competence and Challenges in Assisting with Handwriting Activities, and a Validity Rating Scale for the Assistive Video for Parents in Teaching Cursive Writing. The first tool assessed learners' handwriting legibility through a standardized rubric, while

the second focused on evaluating parents' abilities to assist their children with cursive writing and the challenges they faced. The third tool was used to assess the validity of the assistive video, focusing on its content, instructional quality, and technical aspects.

Data gathering procedure

The schools were grouped into three categories: those in Ilocos Norte, Laoag City, and Batac. Permission to conduct the study was granted by the respective superintendents.

Data analysis tools

The data gathered were analyzed and interpreted using frequency counts, percentage, and mean with qualitative descriptions.

Research ethics

Throughout the study, ethical guidelines were followed, ensuring informed consent, confidentiality, and the well-being of all participants. This approach ensured the integrity and validity of the research process, leading to the development of an effective and standardized instructional video for parents**.**

For the parents' competence in assisting their children in doing handwriting activities, the scale below was used:

Range of Means	Descriptive Interpretation
4.51-5.00	Very Highly Competent (VHC)
3.51-4.50	Highly Competent (HC)
2.51-3.50	Moderately Competent (MC)
1.51-2.50	Slightly Competent (SC)
1.00-1.50	Not Competent (NC)

Meanwhile, the validity of the Assistive Video for Parents in Teaching Cursive Writing was analyzed and interpreted with the scale below:

Range of Means	Descriptive Interpretation
4.51-5.00	Very Highly Valid (VHV)
3.51-4.50	Highly Valid (HV)
2.51-3.50	Valid (V)
1.51-2.50	Slightly Valid (SV)
1.00-1.50	Not Valid (NV)

Data presentation and analysis

Cursive handwriting illegibility of learners

This section presents the cursive handwriting illegibility committed by learners along letter size, proportion and alignment, spacing smoothness or line quality and slant. The findings are shown in Tables 1 to 4.

Letter size, proportion, and alignment

Table 1 presents the learners' handwriting illegibility related to letter size, proportion, and alignment. Learners' handwriting illegibility issues include upper-case letters that do not reach the headlines or extend beyond them, lower-case letters that do not reach the midline or baseline, or extend beyond these lines. There are also problems with irregular alignment and inconsistent letter size.

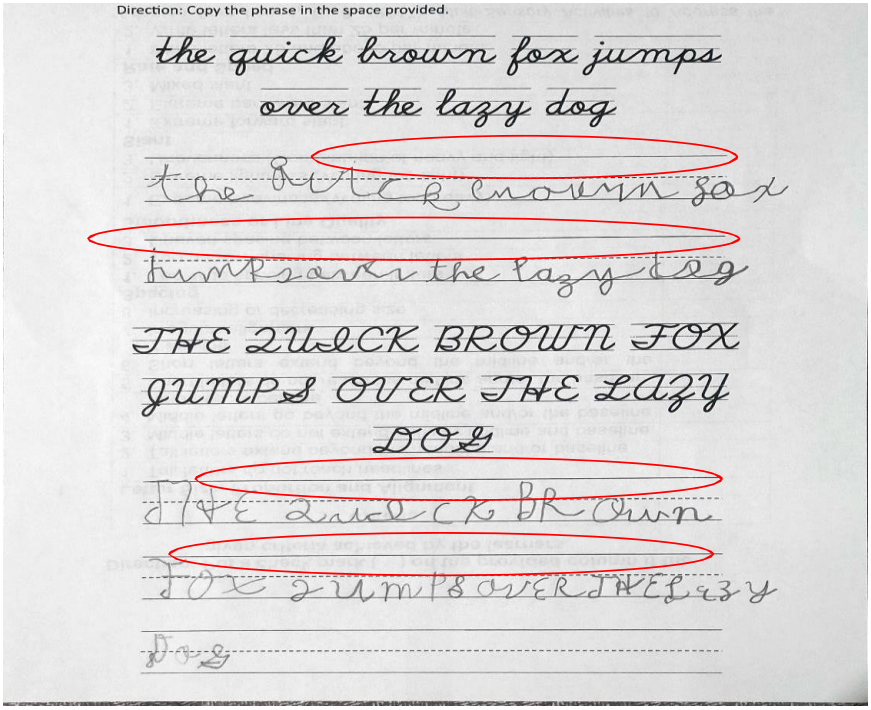
Table 1. Cursive handwriting illegibility committed by the learners along letter size, proportion, and alignment. (n=155)

Indicators	f	%
1. Upper-case letters do not reach headlines	74	48
2. Upper-case letters extend beyond the headline and/or baseline	16	10
3. Lower-case letters do not reach the midline and/or the baseline	88	57
4. Lower-case letters extend beyond the midline and/or the baseline	20	13
5. Irregular alignment	46	30
6. Increasing/decreasing size	18	12

More than half of the learners exhibited illegibility with *lower-case letters not reaching the midline and/or baseline* (88 or 57%) and (74 or 48%). Meanwhile, very few of them (16 or 10%) write *upper-case letters extending beyond the headline and/or the baseline*.

The results reveal that learners face challenges in maintaining proper alignment while writing, affecting both letter size and consistency. This difficulty hinders the development of legible handwriting, with many letters not conforming to the designated writing lines, leading to unclear writing. The study calls for targeted interventions and collaboration between teachers and parents to improve handwriting through specialized exercises and consistent practice.

Figure 4 shows examples of the learners' handwriting, illustrating issues like misalignment and inconsistent letter formation, with many letters failing to reach the appropriate lines. These findings align with research by Brown and Smith (2019) on the importance of precise alignment for handwriting proficiency and Jones and Brown (2018), who stress the need for ample practice time to develop proper handwriting skills. The study suggests that effective instruction should focus on proper alignment, proportionate letter formation, and sufficient practice to help learners improve their cursive skills.



It is observed that many lowercaseand uppercase letters, marked in red circles,did not reach the headlines. There is also irregular alignment in some letters, making wordsunclear.Some uppercase letters do not reach the middleline,and a fewletters extend beyond the baseline.

Figure 4. Sample specimen on illegibility along letter size, proportion and alignment

Using handwriting lines helps maintain proper letter height and distinguish between lowercase and uppercase letters (Anderson and Davis, 2017; Doe, 2016). Consistent letter sizing is crucial for clarity and comprehension (Johnson et al., 2020).

Spacing

Learners often face problems with inconsistent spacing between letters within words, resulting in spacing that is too narrow, too wide, or uneven. Table 2 presents the issues of illegibility related to spacing observed in learners' writing.

The table indicates that the majority (71 or 46%) of learners committed *uneven spacing between letters*, a smaller portion (17 or 11%) wrote with *spacing that was too narrow*, and only a few (6 or 4%) had *spacing that was too wide*.

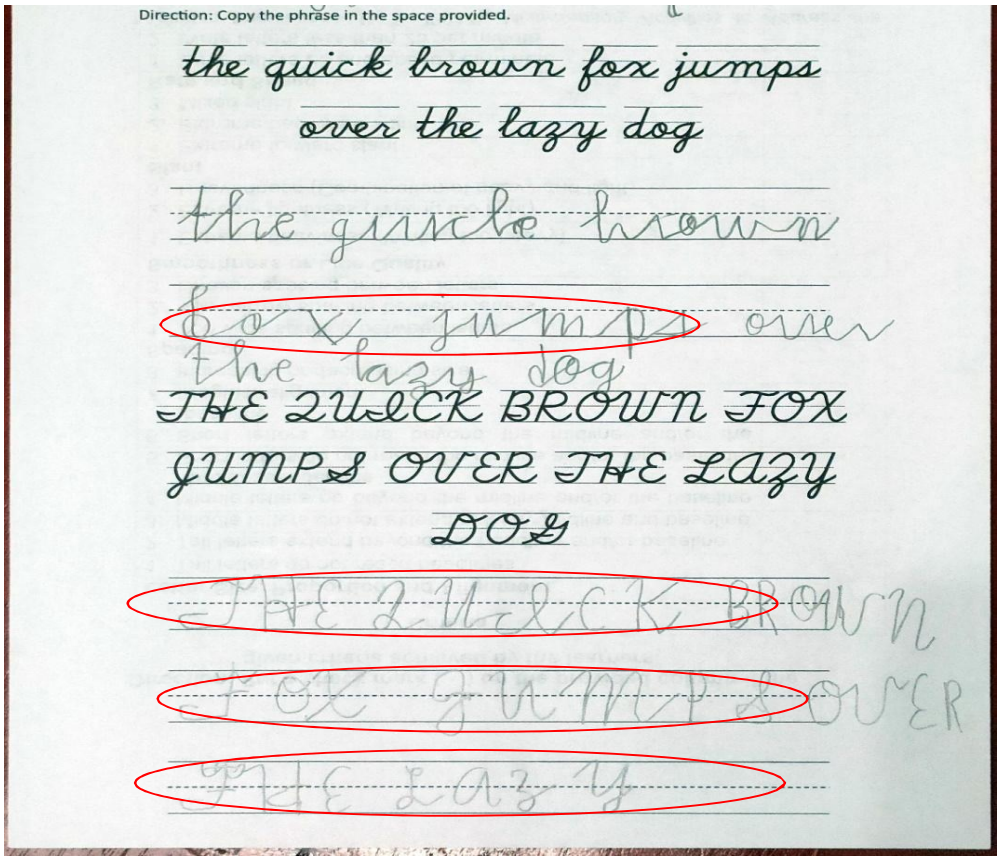
This suggests that uneven letter spacing is the most common issue affecting legibility, highlighting the need for targeted interventions to address this specific problem in learners' writing. When letters are spaced unevenly, it often hampers readability and comprehension. Therefore, it is essential for instructional strategies to incorporate activities and exercises that specifically aim to refine learners' spacing of letters to ensure their writing is clear and easily readable.

Table 2. Cursive handwriting illegibility committed by the learners along spacing. (n=155)

Indicators	f	%
1. Too wide spacing between letters.	6	4
2. Too narrow spacing between letters.	17	11
3. Uneven spacing between letters.	71	46

The case of illegibility regarding spacing is evident on the next page. Learners struggle with writing equally or evenly spaced letters, as reflected in their writing specimens. Uneven spacing between letters (encircled in red) is apparent, such as the wide space between "x" in "fox" and "j" in "jump."

The findings indicate that learners demonstrate a tendency to exhibit inconsistencies in the spacing of their cursive writing, emphasizing the need for tailored instruction. Inconsistent spacing, whether too cramped or too scattered, impacts legibility. Addressing this issue with targeted teaching methods is essential for improving students' written communication.



As indicated by the red circles, it shows the presence of incorrect spacing between the letters. Notably, there is a considerable gap between the letter "x" in "fox" and the letter "j" in "jump." The second and third circled letters/words also exhibit uneven spacing, making it challenging to read the individual letters and the words they form distinctly.

Figure 5. Sample specimen on illegibility along spacing

The results of this study on illegibility because of wrong spacing are supported by Miller and White (2017), which examined how variations in spacing affect the legibility and readability of written text. Their study found that spacing hinders readers' comprehension. As such, they emphasized the importance of maintaining consistent and appropriate spacing between letters to enhance overall writing quality.

Similarly, Carter and Brown (2018) explored the impact of narrow letter formation on the overall legibility and readability of written text. The findings underscored the importance of ensuring appropriate letter width to enhance the clarity of written communication.

Moreover, the learner's tendency to neglect spacing in both uppercase and lower-case letters resonate the insights of Anderson and Smith (2019), who explored the influence of spacing awareness on the development of handwriting skills in learners. They emphasized the significance of fostering an understanding of spacing rules to improve overall writing proficiency and readability.

Smoothness or line quality

When examining the writing patterns of learners, it becomes apparent that challenges with illegibility often arise in relation to smoothness and line quality. This can manifest in writing with excessive pressure or a light touch, leading to an inconsistent flow in their writing.

3. Cursive handwriting illegibility committed by the learners along smoothness or line quality. n=155

Indicators	f	%
1. Extreme heaviness (writing too heavy)	15	10
2. Extreme lightness (writing too light)	0	10
3. Unevenness (combination of heavy light)	5	3

Table 3 presents the illegibility committed by learners concerning smoothness or line quality.

It appears that very few learners exhibit illegibility in this area. Based from the table, only 15 (10%) learners wrote with *extreme heaviness*, and 5 (3%) displayed *unevenness* by combining heavy and light strokes. Notably, none of the learners committed *extreme lightness* in their writing.

Most learners demonstrate proficiency in controlling stroke heaviness and consistency, maintaining a balanced approach in handwriting, avoiding extremes that could impact legibility, highlighting their overall competence in managing stroke characteristics during writing tasks.

Slant

Slant is a crucial skill for text readability, enhancing the text's legibility, clarity, and professionalism. Table 4 shows that no learner exhibited extreme forward or backward slant in their writing, indicating

no significant deviations in their handwriting. This suggests that learners maintain a stable and consistent slant direction, avoiding exaggerated angles that could affect readability and aesthetic quality. This consistency in slant contributes to overall legibility and reflects a level of control and proficiency in their handwriting skills. Overall, slant plays a significant role in how content is perceived by the audience.

4. Cursive handwriting illegibility committed by the learners along slant. (n=155)

Indicators	f	%
1. Extreme forward slant	0	0
2. Extreme backward slant	0	0

The findings align with Smith and Johnson's (2016) assertion regarding the importance of recognizing common slant tendencies in cursive writing and their influence on overall legibility. Horizontal slanting is predominant among learners, often associated with smoother and more legible cursive handwriting.

Parents' competence in assisting learners with handwriting activities

This section analyzes data on parents' competence in helping their children with handwriting activities. Parents rated themselves highly competent, with an overall mean of 4.32, indicating their ability to support their children's handwriting development through technical guidance and a positive learning environment. The mean ratings for all indicators ranged from 4.21 to 4.45, suggesting parents excel at aligning home practice with the curriculum, adapting methods, and creating a supportive space for learning. The highest-rated skill was fostering a positive attitude toward handwriting (4.45), while the lowest was managing screen time (4.21). Despite this, parents demonstrated strong competence in all areas. The findings align with Doe et al. (2018), which highlights the importance of parental attitudes and home environments in shaping children's learning.

5. Competence of parents in teaching their children in cursive writing. n=125

Indicators	Mean	DI
1. Align home handwriting practice with the intricacies of the school's curriculum and expectations.	4.23	HC
2. Implements specific school requirements, showcasing adaptability, and understanding of curriculum nuances.	4.35	HC
3. Tailors teaching methods to address individual challenges, showcasing a deep understanding of each child's handwriting needs.	4.27	HC
4. Employs personalized strategies to enhance fine motor skills, crucial for individualized handwriting improvement.	4.34	HC
5. Allocates dedicated, consistent, and targeted time for focused handwriting activities.	4.27	HC
6. Demonstrates adeptness in balancing screen time, minimizing distractions, and maximizing the efficacy of handwriting practice sessions.	4.21	HC

7. Creates a conducive and stimulating environment that optimizes the effectiveness of handwriting practice.	4.39	HC
8. Provide quality handwriting resources, demonstrating a commitment to excellence in learning tools.	4.39	HC
9. Displays proficiency in maintaining open communication with teachers, actively seeking insights to tailor home practice for optimal results.	4.22	HC
10. Integrate teacher feedback into the home learning environment, showcasing collaborative competence.	4.27	HC
11. Exhibits mastery in implementing diverse and effective strategies to address resistance from the child or health-related challenges to handwriting.	4.28	HC
12. Creates and sustains an environment of unwavering positivity, motivation, and encouragement, showcasing exceptional competence in overcoming challenges.	4.40	HC
13. Familiar with technology tools and resources that complement my child's traditional handwriting practice.	4.28	HC
14. Know ergonomic factors that can impact my child's handwriting, such as proper seating and writing posture.	4.37	HC
15. Encourage a positive attitude toward handwriting in my child, fostering a healthy and enjoyable learning experience.	4.45	HC
16. Demonstrates proficiency in teaching correct letter formation and stroke sequence.	4.35	HC
17. Ensures consistent practice of proper spacing and letter size.	4.39	HC
Composite Mean	**4.32**	**HC**

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Additionally, Smith (2016) highlights the importance of open communication between parents and teachers, arguing that collaboration between home and school is crucial for creating a conducive learning environment. Smith's research indicates that when parents and teachers maintain consistent and transparent communication, it leads to better alignment of educational goals and strategies, thereby enhancing the overall learning experience for the child.

Table 6. Challenges encountered by parents in teaching their children cursive handwriting. n=125

Indicators	Frequency	%
Lack of Patience	31	24
Limited Time	66	50
Inconsistent Guidance	20	16
Technology Distractions	77	61
Fine Motor Skills Development	30	24
Unsuitable Learning Development	11	9
Learning Disabilities	5	4

Comparison Pressure	24	19
Ineffective Teaching Techniques	20	16
Language Barriers	25	20
Incomplete Understanding of Curriculum	23	18
Limited Resources	0	0
Health Issues	2	2
Resistance from Child	40	32
Lack of confidence in assisting my child in handwriting activities.	81	65
Failing to identify my child's handwriting challenges and provide appropriate support.	85	68
Lack of awareness on age appropriate handwriting	74	59
Inadequate knowledge on ergonomic factors that can impact child's handwriting such as proper sitting and writing posture.	76	61
Unfamiliarity with technology tools and resources that complement child's traditional handwriting	72	58
Lack of awareness regarding community resources or educational programs that can further support the child's handwriting development.	59	47

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Parents play a key role in their children's handwriting development but face challenges in confidence (65%), identifying handwriting issues (68%), managing distractions (61%), and understanding ergonomic factors (61%). While most parents are actively involved, these limitations hinder effective support at home. Only a small percentage (≤10%) reported minor issues like learning disabilities, with no concerns about resource availability (Johnson et al., 2019). Parental confidence significantly influences children's handwriting progress, and addressing these challenges through targeted interventions can enhance learning outcomes (Smith & Brown, 2018). Strengthening parental skills in handwriting support, technology management, and ergonomic awareness can create a more effective home learning environment (Anderson et al., 2020).

Table 7d. Summary of the panel of experts' evaluation of the validity of the assistive video. (n=6)

Indicators	**Mean**	**DI**
1. Content Quality	4.57	VHV
2. Technical Quality	4.36	HV
3. Instructional Quality	4.52	VHV
Overall Mean	**4.48**	**HV**

The expert panel's evaluation confirms the assistive video's high validity as a support tool for parents teaching cursive handwriting. Content and instructional quality received the highest ratings, affirming the video's well-structured and effective approach. While technical quality scored slightly lower, it

remains highly valid, suggesting room for minor refinements. Based on expert feedback, the researcher made several improvements, such as adding a title at the beginning for clarity, enhancing audio quality with better sound effects, and increasing font size for readability. Additional interactive activities were included to engage young learners, and instructional segments were re-recorded in standard English or with a Filipino demonstrator to ensure clarity. These revisions strengthened the video's effectiveness, making it a more accessible and engaging educational resource.

Discussion

The study highlights the significant challenges Grade 3 learners face in cursive handwriting, particularly in letter formation, spacing, smoothness, slant, and overall legibility. These difficulties underscore the need for structured interventions to improve handwriting proficiency early on. The assistive videos developed in this study proved effective in supporting parents as they teach cursive writing, receiving high validation ratings for content and instructional quality. By providing clear guidance, these videos help address parents' lack of confidence and enhance their ability to support their children's learning at home. Given that many parents struggle with identifying handwriting issues and managing technological distractions, these videos offer an accessible and convenient tool to reinforce handwriting development.

The findings emphasize the critical role of parental involvement in early education. Parents who actively engage in their children's handwriting practice contribute to better learning outcomes through consistent guidance and encouragement. However, challenges such as limited ergonomic knowledge and difficulties in balancing screen time suggest a need for additional training or workshops to maximize parental support. The study also highlights the importance of collaboration between educators and parents, where teachers can provide instructional materials and feedback to ensure continuity between home and school learning. Schools may integrate these assistive videos into their curriculum or recommend them as part of home-based learning strategies.

Ultimately, the study demonstrates that structured instructional materials, such as assistive videos, can bridge gaps in handwriting instruction, making learning more effective for both parents and children. Future research may explore their long-term impact and potential applications in broader handwriting education.

Conclusion

The study highlights the significant challenges Grade 3 learners face in cursive handwriting, particularly in letter formation, spacing, smoothness, slant, and overall legibility. Despite these difficulties, parents perceive themselves as competent in supporting their children's handwriting development, demonstrating positive attitudes, dedication, and a commitment to fostering a supportive learning environment. However, obstacles such as lack of confidence, technological distractions, and limited ergonomic knowledge indicate the need for additional support. The evaluation of the assistive video confirms its high validity and effectiveness, underscoring its potential to enhance parental involvement and improve children's cursive writing skills.

These findings align with several educational theories. Handwriting Development Theory is reflected in the structured practice facilitated by the assistive videos, guiding learners through letter formation, alignment, and spacing. Parental Involvement Theory reinforces the importance of active parental engagement in children's handwriting development, showing that when parents are provided with effective resources, they contribute significantly to learning outcomes. Self- Efficacy Theory is demonstrated by the assistive videos' ability to boost parents' confidence, leading to more meaningful and consistent support in handwriting instruction. Cognitive Development Theory, particularly Piaget's framework, emphasizes the importance of age- appropriate strategies in learning cursive writing. Motor Learning Theory is evident in the study's focus on repetitive practice as a key factor in handwriting proficiency. Lastly, Zone of Proximal Development (ZPD) Theory highlights the role of assistive videos as scaffolding tools that help parents guide their children through handwriting development effectively.

Overall, the study underscores the practical benefits of assistive videos in bridging home and school learning. By integrating structured instructional materials, parents can play a more active and confident role in their children's handwriting education. Future research may explore the long-term impact of assistive videos and extend their application to other aspects of handwriting instruction.

Authors' Contribution: The name appear on this paper is the original author of the research paper. She has contributed ideas from the conceptualization of the paper, writing, data gathering and data analysis.

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